



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,581	11/01/2001	Maurice R. Paquin	3257-21A	4023

20999 7590 08/06/2003

FROMMER LAWRENCE & HAUG  
745 FIFTH AVENUE- 10TH FL.  
NEW YORK, NY 10151

EXAMINER

GRAY, LINDA LAMEY

ART UNIT	PAPER NUMBER
----------	--------------

1734

DATE MAILED: 08/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/016,581

Applicant(s)

PAQUIN, MAURICE R.

Examiner

Linda L Gray

Art Unit

1734

-- Th MAILING DATE of this communication app ars on th cov r sheet with the correspond nce address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-11, 13 and 15-20 is/are rejected.
- 7) ☒ Claim(s) 8, 12, 14 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

**Claim Rejections - 35 USC § 103**

**1.** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**2. Claims 1, 4-5, 9-10, 13, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stigberg (US 5,171,389) in view of Arnold (US 5,396,755).**

**Claim 1**, Stigberg teaches a method for manufacturing press fabric 24 or, a paper machine including:

**(a)** providing base fabric 26/36 for fabric 24 in the form of an endless loop having inner and outer surfaces, first and second lateral edges 50, and a fabric width measured transversely between edges 50,

**(b)** providing multi-component strip 46 for covering the outer surface of fabric 26/36 in a closed helix where strip 46 has a beginning, first lateral edge 54, second lateral edge 56, a strip width measured transversely which is less than the width of fabric 26/36, and has at least a strip of a top laminate layer material and a heat-activated adhesive film bonded to one side of the top laminae layer material,

**(c)** attaching a side of strip 46 at the beginning to the outer surface of fabric 26/36 using the adhesive at a point on first edge 50 using heat,

**(d)** continuing from the beginning to attaching strip 46 to the outer surface of fabric 26/36 in a closed helix having a plurality of turns using heat where edge 54 of one turn abuts against edge 56 of another turn until the outer surface of fabric 26/36 is completely covered by strip 46 in a closed helix, and

**(e)** cutting strip 46 at a point on second edge 50 (c 5, L 11, to c 6, L 37).

**Claim 1**, Stigberg does not teach bonding under pressure.

It is conventional to bond under pressure to ensure good contact between the adhesive and the two items being bonded together. Specifically, it is conventional to use a pressure roll in combination with another surface to form a nip when bonding two items together to ensure adequate bonding. Arnold demonstrates providing pressure roll 26 forming nip with a shaft (another surface) where sheets 16 are bonded to each other and to item 13. Roll 26 is used to ensure adequate bonding while item 13 is wrapped with item 16 (c 2, L 50, to c 3, L 28).

Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Stigberg bonding under pressure because it is conventional to bond under pressure to ensure adequate bonding, as shown by Arnold.

**Claims 4-5**, in Stigberg the top layer-laminate material is thermoplastic polyurethane.

**Claim 9**, in Stigberg it is clear that portions of strip 46 along edges 50/50 will be over edges 50/50 because of the helically winding. However, Stigberg modified does not teach trimming strip 46 along edges 50/50.

It is conventional to trim the edges of an endless belt made by helically winding and attaching a strip of material onto an endless fabric to remove the over-edge strip to prevent the strip from contacting the rollers which move the belt during use because such would break the strip and damage the process and belt, and for this reason it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided for this in Stigberg modified.

**Claim 10**, Stigberg teaches providing first process roller 44 and second process roller 42 being rotatable about respective axes and the axes being parallel to one another, mounting fabric 26/36 around roll 44 and 42 so that rolls 44 and 42 are within the loop, separating rolls 44 and 42 from each other to fixed positions to place fabric 26/36 under tension, rotating rolls 44 and 42 in a common direction, heating strip 46 to activate the adhesive, feeding the beginning strip 46 for the attachment, and rotating rolls 44 and 42 in the common direction while feeding strip 46 for attaching strip 46 to the outer surface of fabric 26/36 in a closed helix until the outer surface of fabric 26/36 is completely

covered. In Stigberg modified there is a pressure roll forming a nip with roll 44.

**Claim 13**, in Stigberg fabric 26/36 is removed from rolls 42 and 44 after applying strip 46 so that such can be put to use with shoe 14.

**Claims 15-18**, *Stigberg modified teaching bonding under heat using infrared (claim 18). Stigberg modified does not teach using, instead, a heated roller 44 (claim 15), a heated pressure roller (claim 16), or flow of heat (claim 17).*

Using heated rollers or flowing heat to help bond is a conventional alternative to using the infrared heat of Stigberg, and for this reason it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Stigberg modified bonding using a heated roller 44, heated pressure roller, or flowing heat instead of the infrared heat because it is obvious to replace one type of heating means with another art recognized alternative heating means.

**Claim 19**, *Stigberg modified teaches a pressure roller smaller than the width of the material being wrapped because Arnold teaches roll 26 to be smaller than item 13 being wrapped. Stigberg modified does not teach a pressure roller being the width of fabric 26/36.*

It is conventional to provide a pressure roller being of a width the same as that item being wrapped, and for this reason it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Stigberg modified a pressure roller of a width the size of fabric 26/36 because it is conventional to replace one size pressure roller with another art recognized size pressure roller.

**Claim 20**, Stigberg modified teaches a pressure roller smaller than the width of the material being wrapped because Arnold teaches roll 26 to be smaller than item 13 being wrapped.

**3. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stigberg in view of Arnold as applied to claims 1, 4-5, 9-10, 13, and 15-20, and further in view of Rexfelt et al. (US 5,360,656).**

**Claim 11**, *Stigberg modified does not teach strip 46 from a roll.*

Rexfelt et al. teach forming an endless felt belt for the papermaking industry by wrapping using material 20 about two separated rolls 10 and 12. Material 20 is provided

from roll 14 (c 4, L 19, to c 5, L 51).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Stigberg modified that strip 46 is from a roll because Rexfelt et al. teach in the same art to provide the wrapping material from a roll where rolls are a convenient means for storing material till use.

**4. Claims 1-3, 9-10, 13, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheehan (US 1,651,476) in view of Stigberg and Arnold.**

**Claim 1**, Sheehan teaches a press fabric endless loop for a paper machine including base fabric B, top laminate layer material F and adhesive C therebetween. Adhesive C is not limited to rubber cement but can be any other suitable adhesive not soluble in water (p 1, c 1, L 37, to p 2, c 2, L 12).

***Claim 1**, Sheehan does not teach a method of making the loop in that Sheehan does not teach the method of claim 1, using a heat activated adhesive.*

The above discussion of Stigberg in view of Arnold applies.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Sheehan making the loop using the method described in Stigberg in view of Arnold, using a heat activated adhesive, because it is conventional to use a well-known method of making the same kind of product where Sheehan does not elaborate on a method such that one skilled in the art would not consider the combination detrimental to the product of Sheehan.

**Claim 2**, in Sheehan material F is woven fabric (wool spun). **Claim 3**, in Sheehan material F is a non-woven mesh (wool pounded into felt).

***Claim 9**, in Sheehan modified it is clear that portions of material F and adhesive C along edges of base B will be over the edges because of the helical winding. However, Sheehan does not teach trimming material F and adhesive C along the edges.*

It is conventional to trim the edges of an endless belt made by helically winding and attaching a strip of material onto an endless fabric to remove the over-edge strip to prevent the strip from contacting the rollers which move the belt during use because such

would break the strip and damage the process and belt, and for this reason it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided for this in Sheehan modified.

**Claim 10**, Sheehan teaches providing a first process roller and a second process roll 42 being rotatable about respective axes and the axes being parallel to one another, mounting fabric B around the rolls so that the rolls are within the loop, separating the rolls from each other to fixed positions to place fabric B under tension, rotating the rolls in a common direction, heating the combination of F and C to activate the adhesive, feeding the beginning of the combination for the attachment, and rotating the rolls in the common direction while feeding the combination for attaching the combination to the outer surface of fabric C in a closed helix until the outer surface of fabric C is completely covered. In Stigberg modified there is a pressure roll forming a nip with the first roll.

**Claim 13**, in Stigberg fabric B is removed from the rolls after applying the combination of F and C strip 46 so that such can be put to use.

**Claims 15-18**, *Sheehan modified teaches bonding under heat using infrared (claim 18). Stigberg modified does not teach using, instead, a heated roller 44 (claim 15), a heated pressure roller (claim 16), or flow of heat (claim 17).*

Using heated rollers or flowing heat to help bond is a conventional alternative to using the infrared heat of Stigberg, and for this reason it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Stigberg modified bonding using a heated roller 44, heated pressure roller, or flowing heat instead of the infrared heat because it is obvious to replace one type of heating means with another art recognized alternative heating means.

**Claim 19**, *Sheehan modified teaches a pressure roller smaller than the width of the material being wrapped because Arnold teaches roll 26 to be smaller than item 13 being wrapped. Sheehan modified does not teach a pressure roller being the width of fabric B.*

It is conventional to provide a pressure roller being of a width the same as that item being wrapped, and for this reason it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Sheehan modified a pressure roller of a width the size of fabric B because it is conventional to replace one size pressure roller with another art recognized size pressure roller.

**Claim 20**, *Sheehan modified teaches a pressure roller smaller than the width of the material being wrapped because Arnold teaches roll 26 to be smaller than item 13 being wrapped.*

**5. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheehan in view of Stigberg and Arnold as applied to claims 1-3, 9-10, 13, and 15-20, and further in view of Eklund (US 4,446,17).**

*Claims 6-7, Sheehan modified does not teach aperturing material F and C. Sheehan does indicate that F should be porous and C can have open areas therein to allow for water drainage.*

Eklund teaches a press fabric endless loop for a paper machine including base fabric 3, top laminate layer material 1, and an endless adhesive therebetween. Eklund teaches that in order to ensure maximum dewatering evenness in the papermaking process, it is necessary to provide a high degree of controlled porosity. Thus, the belt is perforated using laser head 9 which provides channels (c 2, L 67, to c 7, L 37).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Sheehan modified aperturing material F and C as shown by Eklund because Eklund teaches that such ensures maximum dewatering during use where Sheehan does indicate that F should be porous and C can have open areas therein to allow for water drainage.

**6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sheehan in view of Stigberg and Arnold as applied to claims 1-3, 9-10, 13, and 15-20 and further in view of Rexfelt et al.**

*Claim 11, Sheehan modified does not teach the combination of material F and adhesive C from a roll.*

In view of Rexfelt et al. it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Sheehan modified that the combination of material F and adhesive C is from a roll because Rexfelt et al. teach in the



same art to provide the wrapping material from a roll where rolls are a convenient means for storing material till use.

**Double Patenting**

**7.** The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

**8. Claims 1-21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,350,336. Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations of claims 1-21 is taught by claims 1-20.**

**Allowable Subject Matter**

**9.** For claims 8, 12, 14, and 21, the following statements are necessary:

**Claims 8 and 21:** it would not have been obvious to one skilled in the art to have provided in Stigberg a step of needling a staple fiber batt into the top laminate layer after strip 46 is attached to fabric 26/36 because such would produce apertures in the top laminate layer where Stigberg purposefully provides a consistently impermeable strip 46;

and, the prior art of record does not teach adding a batt layer to layer F in Sheehan by needling in that Sheehan purposefully uses wool such that the surface of layer F is smooth and will not provide yarn marks in paper made thereon.


**Claim 12 and 14:** turning fabric 26/36 inside out before mounting around rolls 42 and 44 in that Stigberg mounts fabric 26/36 on rolls 42 and 44 with inside 36 in and outside 26 out; and the prior art of record does not teach turning fabric B inside out before mounting around the first and second rolls in that Sheehan modified mounts fabric B on the first and second rolls with the inside in and the outside out.


**10.** As allowable subject matter has been indicated, Applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with, 37 CFR 1.111(b) and MPEP 707.07(a).

**Conclusion**

**11.** The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure: Johnson teaches connecting two layers of a papermaking felt by needling.

**12.** Any inquiry concerning this communication or earlier communications should be directed to Examiner Linda L. Gray at (703) 308-1093, Monday-Friday from 6:30 am to 3:30 pm. The necessary fax numbers are (703) 872-9310 and (703) 872-9311.

llg   
July 31, 2003

  
LINDA GRAY  
PRIMARY EXAMINER